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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,437	02/05/2002	Thomas B. Bolt	Q02-1032-US1/11198.85	2631

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EXAMINER
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WOO, ISAAC M

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/072,437	<b>Applicant(s)</b> BOLT, THOMAS B.	
	<b>Examiner</b> Isaac M Woo	<b>Art Unit</b> 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*nc*

### DETAILED ACTION

1. This action is in response to Applicant's Amendments, filed on September 14, 2004 have been considered but are deemed moot in view of new ground of rejections below.

2. Claims 1 and 12-22 are amended. Claims 23-24 are newly added. The pending claims are 1-24

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Karasudani et al (U.S. Patent No. 6,378,054, hereinafter, "Karasudani").

With respect to claims 12 and 23, Karasudani discloses, transmit data received from the input/output port to the backup storage device (20, first storage section, fig. 4,

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col. 13, lines 50-65) during a backup period (fig. 4, fig. 5, col. 14, lines 33-59) and then reclaim storage space on the backup storage device (30, second storage section, fig. 4, col. 13, lines 50-65) during an idle period following the backup period by retrieving the data stored on the backup storage device (fig. 4 and fig. 5, disclose that the archive files are backup file and the archive files are backup on 30 (first storage section, fig. 4)) , compressing the retrieved data (the archive file are retrieved form 20 (storage section, fig. 4) are compressed (data compression, fig.5)), and then re-storing the compressed data on the backup storage device (30, second storage section, fig. 4), see (the archive files are compressed and saved on 30, storage section fig. 5, col. 13, lines 37-67 to col. 14, lines 1-59).

With respect to claim 13, Karasudani discloses, controller is configured to execute a software algorithm to compress the retrieved data, see (fig. 5, col. 14, lines 33-59).

With respect to claim 14, Karasudani discloses, software algorithm includes one of the following types of algorithms a zip; a gnuzip; a bzip; a bzip; a Lempel Ziv; and a LZS (Lempel Ziv Stac), see (fig. 5, col. 14, lines 33-59).

With respect to claim 15, Karasudani discloses, software algorithm is stored in a memory associated with the controller, see (fig. 5, col. 14, lines 33-59).

With respect to claim 16, Karasudani discloses, fiber channel controller coupled between the controller and the input/output port which comprises an optical transceiver, see (fig. 1, col. 8, lines 54-67 to col. 9, lines 1-38).

With respect to claim 17, Karasudani discloses, controller coupled between the controller and the input/output port which comprises an ethernet transceiver, see (col. 1, lines 15-65).

With respect to claim 18, Karasudani discloses, network hub and bridge circuit coupled between the backup storage device and the controller, see (col. 1, lines 15-65).

With respect to claim 19, Karasudani discloses, primary storage location that allows transmission of uncompressed data from the primary storage location to the backup storage device, see (fig. 5, col. 14, lines 33-59).

With respect to claim 20, Karasudani discloses, network connection is one of the following types of network connections: fiber channel or ethernet, see (col. 1, lines 15-65).

With respect to claim 21, Karasudani discloses, primary storage location and the backup storage device are arranged in one of the following: a storage attached network or network attached storage configuration, see (col. 1, lines 15-65).

With respect to claim 22, Karasudani discloses, plurality of clients and servers coupled to the primary storage location through a client network, see (col. 1, lines 15-65).

With respect to claim 24, Karasudani discloses, restoring occurs during the idle period, see (fig. 5, col. 14, lines 33-59).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasudani et al (U.S. Patent No. 6,378,054, hereinafter, "Karasudani") in view of Crighton (U.S. Patent No. 6,330,570).

With respect to claim 1, Karasudani discloses, receiving data during the backup window period (archive file, fig. 4, fig. 5, col. 14, lines 33-59), storing the data on the backup storage device (20, first storage section, fig. 4, col. 13, lines 50-65) during the backup window period, see (fig. 4, fig. 5, col. 14, lines 33-59, data is save with archive file);

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retrieving the data stored on the backup storage (20, first storage section, fig. 4, col. 13, lines 50-65) device during the idle period after the backup window period, see (fig. 5, col. 13, lines 37-67 to col. 14, lines 1-59, ); compressing the data retrieved from the backup storage device during the idle period, see (data compression, fig. 5, col. 13, lines 37-67 to col. 14, lines 1-59); and re-storing the data compressed during the idle period in compressed form on the backup storage device to reclaim space on the storage device, see (the archive files are compressed and saved on 30, storage section fig. 5, col. 13, lines 37-67 to col. 14, lines 1-59). Karasudani does not explicitly disclose, defining a duty cycle for the downloading of data to a backup storage device, the duty cycle having a backup window period and an idle period. However, Crighton discloses, schedule backup job, "allows the backup operator to specify the times and dates for the proposed backup job. An exemplary display is shown in FIG. 3. As shown in FIG. 3, the backup operator can set the time to start the backup, and can specify whether the backup should happen on a daily basis or only on week days. In step 220, the GUI displays a further window, which allows the backup operator to specify at what time of day he would like the pre-backup check to operate. An exemplary display is illustrated in FIG. 4. As shown in FIG. 4, the time is set to 17:00, which is nearing the time when the backup operator might normally wish to go home. The later in the day this time is set for, the lower the risk that, between this time and the actual backup job time, a new problem will be encountered", see (col. 4, lines 26-41 and 215, fig. 2, fig. 3). This discloses schedule backup job GUI for backup schedule cycle. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was

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made to modify Karasudani by incorporating defining a duty cycle for the downloading of data to a backup storage device, the duty cycle having a backup window period and an idle period with the system of Crighton. Thus, one having ordinary skill in the art at the time the invention was made would have found it motivated to use such a modification because that would provide Crighton's system the enhanced and scheduled auto-data backup method in the data management system.

With respect to claim 2, Karasudani discloses, compression of data is performed using a software data compression algorithm, see (fig. 5, col. 14, lines 33-59).

With respect to claim 3, Karasudani discloses, Karasudani discloses, software algorithm includes one of the following types of algorithms a zip; a gunzip; a bzip; a bzip2; a Lempel Ziv; and a LZS (Lempel Ziv Stac), see (fig. 5, col. 14, lines 33-59).

With respect to claim 4, Karasudani discloses, comprising successively repeating the receiving and storing of data during the backup window periods and retrieving, compressing and storing compressed data on the backup storage device during successive duty cycles respectively, see (fig. 5, col. 14, lines 33-59).

With respect to claim 5, Karasudani discloses, emulated tape drive containing an array of hard drives, see (fig. 5, col. 14, lines 33-59).



With respect to claim 6, Karasudani discloses, data is downloaded over a network from a primary storage location, see (fig. 4, col. 14, lines 33-59).

With respect to claim 7, Karasudani discloses, data is downloaded over a fiber-channel connection between the primary storage location and the backup storage device, see (col. 1, lines 15-65).

With respect to claim 8, Karasudani discloses, data is downloaded over an ethernet connection between the primary storage location and the backup storage device, see (col. 1, lines 15-65).

With respect to claim 9, Karasudani discloses, primary storage location and the backup storage device are part of a storage array network, see (col. 1, lines 15-65).

With respect to claim 10, Karasudani discloses, primary storage location and the backup storage device are part of a network attached storage configuration, see (col. 1, lines 15-65).

With respect to claim 11, Karasudani discloses, backup storage device is directly electrically connected to a server, see (fig. 1, col. 8, lines 54-67 to col. 9, lines 1-38).

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW  
July 6, 2005



JEAN M. CORRIELUS  
PRIMARY EXAMINER